Surprise gift from Sanjay

Problem Statement

Here is a surprise gift from Sanjay ,a string of length 'L'.Sanjay know Reethu likes "SUNNY" strings.A "SUNNY" string is nothing but a string which is "PALINDROME" and "PANGRAM" as well.Remember as Reethu is too young,she couldn't differentiate between upper-case and lower-case letters.So,treat both upper-case and lower-case as "lower-case"

Constraints: 1<=L<=100000.

Input Format

First line contains a string of both upper-case and lower-case letters

Output Format

Output "YES" is string is "SUNNY" else "NO".

Sample Input

abccba

Sample Output

NO

Explanation

as the input string is not a pangram,hence "NO".